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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/777,676 | 02/13/2004 | Takeshi Nagahori | Q79912 | 5875 |
| 23373 | 7590 | 11/30/2005 | EXAMINER | |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | TON, MY TRANG | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2816 | |

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,676

Applicant(s)

NAGAHORI ET AL.

Examiner

My-Trang N. Ton

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

MY-TRANG N. TON
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/27/04 & 08/13/04.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

The cited art cited on PTOL 1449 (the prior art listed under OTHER PRIOR ART) was not considered at this time since is not readily available to the Examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Dyer et al (US 2005/0069394).

Dyer et al disclose in Fig. 3 a hybrid system including:

a current driver (Main DAC) for a transmit signal;

a load resistor (R1) connected to the current driver (Main DAC);

a replica driver (Replica DAC); and

a replica resistor (R3) connected between the load resistor (R1) and the replica driver (Replica DAC);

a first point of connection (X) between the replica resistor (R3) and the load resistor (R1) being connected to a transmission path circuit (ZI);

a second point of connection (node between R3, R4) between the replica driver (Replica DAC via R4) and the replica resistor (R3) being connected to a receive side (To Receiver Sampler) as recited in claim 1.

Regarding claim 2: a current ratio between the current driver (Main DAC) and the replica driver (Replica DAC) is inherently seen represented by a complex number (see Exemplary Config. 1 and Exemplary Config. 2). Because the structure of the claims is fully met by Dyer, the recited function will necessarily be inherent in Dyer, as held by the court in *In re Best*, 195 USPQ 430.

Regarding claim 3: the complex number has a real part and an imagine part, at least one of the real part and the imaginary part being variable (because the structure of the claims is fully met by Dyer, the recited function will necessarily be inherent in Dyer, as held by the court in *In re Best*, 195 USPQ 430).

Regarding claims 4-5 are similarly rejected as claims 2-3.

Elements R4 or C2 read on a circuit element as recited in claim 6.

The circuit element (C2) is variable as recited in claim 7.

The replica driver comprises a digital filter circuit (is seen as Replica DAC) as recited in claim 8.

Claim 9 is similarly rejected as claim 3.

The current driver and the replica driver are implemented by a DAC of a current output type (Main DAC and Replica DAC) as recited in claim 10.

Regarding claim 11: The replica driver is a digital to analog converter (Replica DAC) connected to a digital filter (inherent seen in Fig. 3).


Claim 12 is similarly rejected as above claim 1: a current driver (Main DAC); a load resistor (R1); a replica driver (Replica DAC); a replica resistor (R3); a first point of connection (X) and a second point of connection (node between R3, R4).

Regarding claim 13: because the structure of the claims is fully met by Dyer, the recited function recited therein will necessarily be inherent in Dyer, as held by the court in *In re Best*, 195 USPQ 430.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


My-Trang N. Ton
Primary Examiner
Art Unit 2816

November 22, 2005